

REMARKS

Applicants have amended claims 1, 14, and claim 21. Claims 2, 3, 5, 6, 9, 15, 16 and 18 are canceled, without prejudice. Claims 1, 4, 7-8, 10-14, 17, and 19-21 are presented for examination. Favorable reconsideration is respectfully requested.

Claim Objections

Claim 9 was objected to for depending from canceled claim 3. Claim 9 has been canceled, and as such, the objection is now moot with respect to claim 9.

35 U.S.C. § 112

Claims 9 and 16 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 9 and 16 have been canceled, and as such, this rejection is now moot with respect to claims 9 and 16.

35 U.S.C. §103

Claims 1, 7, 8, 10-14 and 19-21 were rejected as being unpatentable over U.S. Patent No. 4,893,555 (Leyland) in view of U.S. Patent No. 3,817,172 (Horton) and U.S. Patent No. 2,887,051 (Maunder). Claims 9 and 16 were rejected as being unpatentable over Leyland in view of Horton and Maunder and further in view of U.S. Patent No. 2,763,893 (Hall). Claims 4 and 17 were rejected as being unpatentable over Leyland in view of Horton and Maunder and further in view of U.S. Patent No. 3,791,290 (Colledge). Applicants have amended independent claims 1, 14, and 21 to more clearly define the scope of those claims. As amended, claims 1, 14 and 21 include preheating a work piece surface of a plastic work piece to a temperature between 80°C and 120°C.

The Office action (page 5) correctly acknowledges that Leyland does not disclose preheating a work piece surface to a temperature between 80°C and 120°C. However, the Office action apparently adds Maunder for allegedly teaching this missing feature and suggests that "it

would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Leyland wherein the work piece surface to be printed is preheated to a temperature between 80°C and 120°C, because Mauder teaches that it is known to heat work pieces to these temperatures, and heating work pieces to such temperatures would predictably provide the preheating necessary to effect successful transfer of printed material to the work piece.¹ Applicants respectfully disagree. Mauder is particularly directed toward the marking of metal objects.² In this regard, Mauder discloses that 100°C-130°C is the preferred preheat temperature range for the marking of metal objects, not plastic work pieces as claimed.³ There is simply nothing to suggest that the preheat temperature range disclosed by Mauder would be suitable for plastic work pieces. In fact, Leyland appears to suggest a markedly lower temperature range (i.e., 40°C to 60°C) for the preheating of plastic substrates.⁴

Moreover, although Leyland suggests a stamping surface (i.e., the heated die 16) having an operating temperature “in excess of 200°C,”⁵ this open-ended range is so broad as to encompass a very broad number of possible temperatures. The only range that Leyland specifically describes (i.e., between 260°C and 300°C)⁶ does not overlap or include the stamping surface temperature range (i.e., between 140°C and 240°C) claimed by the applicants.

These are not merely trivial distinctions. Applicants have discovered that preheating plastic surfaces to the claimed temperature range enables the use of the claimed, reduced stamping surface temperatures. The reduction of the temperature of the stamping surface results in the carrier foil being subjected to a lower thermal load and therefore less susceptible to wear.⁷ And, although Leyland discloses that preheating a plastic substrate allows for increased printing speed, there is no indication that the problem being solved by the applicants was recognized by Leyland. Nor does Leyland otherwise indicate that such an arrangement would be in any way beneficial. To the contrary, the temperatures ranges suggested in Leyland seem to exactly

¹ See, e.g., Office action of June 10, 2009 at page 5.

² See, e.g., Mauder at col. 1, lines 15-17.

³ See, e.g., id. at col. 2, lines 47-49.

⁴ See, e.g., Leyland at col. 3, lines 60-62.

⁵ See, e.g., id. at col. 2, lines 53-54.

⁶ See, e.g., id. at col. 2, lines 55-56.

⁷ See, e.g., U.S. Pat. App. Pub. No. 2006/0266795 at ¶ [0009].

operate with what applicants regard as an overheated stamping surface and make use of a lower work piece temperature.⁸

The remaining art has not been cited for, nor does it show, do not remedy the deficiencies of Leyland and Mauder discussed above. Accordingly, claims 1, 14 and 21 are believed to be patentable.

Each of the dependent claims is believed to define patentable features of the invention. Each dependent claim partakes of the novelty of its corresponding independent claim, in light of the foregoing amendments, and, as such, has not been discussed specifically herein.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the foregoing amendments and remarks, applicants respectfully submit that the application is in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

⁸ See, e.g., *id.* at ¶ [0004].

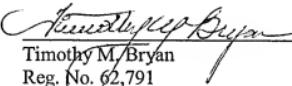
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Applicants attach a Petition for Two-Month Extension of Time. The two-month extension of time fee in the amount of \$490 is being paid concurrently on the electronic filing system (EFS) by way of deposit account authorization. Please apply any other charges or credits to deposit account number 06-1050, referencing Attorney Docket No. 02894-0729US1.

Respectfully submitted,

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